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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,432	10/03/2001	Harold O. Treece	30545.11	4315

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EXAMINER

NOVOSAD, CHRISTOPHER J

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 03/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/970,432

Applicant(s)

TREECE, HAROLD O.

Examiner

Christopher J. Novosad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-113 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-51 and 89-108 is/are allowed.
- 6) ☒ Claim(s) 52,55-57,62,67-80,84,86-88 and 109-112 is/are rejected.
- 7) ☒ Claim(s) 53,54,58-61,63-66,81-83,85 and 113 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 70-79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 70, line 4, the recitation “the first plug” lacks proper antecedent basis.

Dependent claims 71-79 are rejected as indefinite for the same reason as parent claim 70.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

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122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 52, 55-57, 62, 67, 68, 70, 73, 80, 86-88 and 109-112 are rejected under 35 U.S.C. 102(b) as being anticipated by Freeman (U.S. 4,836,279).

See particularly col. 2, line 50 to col. 3, line 13 as well as Figs. 1 and 2 of Freeman.

With respect to claim 52, note the two axially-spaced, conical wipers 48 (Fig. 1) that necessarily would engage the inner surface in a manner so that each wiper would necessarily be deflected into a substantially cylindrical shape in engagement with an inner surface of a casing.

With regard to claims 55, 70 and 109, the recited limitation of “wherein as the wiper closest to the one end of the casing wears, the pressure will be applied to the other wiper” will, as a matter of basis hydraulics, be inherent in the normal operation of each of the wiper plugs 12, 14 of Freeman. For example, when pumping the lower plug 14 down the casing string, any hydraulic fluid pressure bypassing or leaking past the uppermost wiper 48, due to normal peripheral wear thereof, will, as a matter of basic hydraulics, necessarily be applied to the next adjacent lower wiper 48, similarly as called for in these claims.

For the same reason given above with respect to claims 70 and 109, the similar recitations in claim 80 of (1) “wherein as a wiper on the first plug closest to the one end of the casing wears, the pressure will be applied to the other wiper of the same plug” and (2) “wherein as a wiper on the second plug closest to the one end of the casing wears, the pressure will be applied to the other wiper of the same plug,” as well as the last-recited step in claim 73, will necessarily be met by the normal operation of the wiper plugs 12, 14 of Freeman.

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With respect to claims 56 and 73, the recited “insert” that is a “shearable member” is clearly met by the pressure-rupturable diaphragm 50 in plug 14 of Freeman.

With regard to claims 57, 86 and 87, pressure is applied to the second plug 12 of Freeman (col. 3, lines 3-6) by introducing fluid into the casing behind plug 12 thereby forcing cement from the casing string into the annulus in the same manner as called for in these claims.

As to claim 62, note the two axially spaced wipers 48 on the first plug 14 and the two axially spaced wipers 26 on the second plug 12.

With respect to claims 69 and 88, note the use of a float shoe in Freeman (Fig. 2, col. 2, lines 30-32 and 64-68) in the same manner as called for in the claim.

Claims 70, 74, 75, 80, 84, 86, 87 and 109-112 are rejected under 35 U.S.C. 102(e) as being anticipated by Giroux *et al.* (U.S. 5,813,457).

See particularly Figs. 11, 13, 24, 25 and 27-29 of Giroux *et al.*

With regard to claims 70 and 109, the recited limitation of “wherein as the wiper closest to the one end of the casing wears, the pressure will be applied to the other wiper” will, as a matter of basis hydraulics, be inherent in the normal operation of each of the wiper plugs (unnumbered) of Giroux *et al.* For example, when pumping the lower plug (unnumbered) down the casing string, any hydraulic fluid pressure bypassing or leaking past the uppermost wiper (unnumbered), due to normal peripheral wear thereof, will, as a matter of basic hydraulics, necessarily be applied to the next adjacent lower wiper (unnumbered), similarly as called for in these claims.

For the same reason given above with respect to claims 70 and 109, the similar recitations in claim 80 of (1) “wherein as a wiper on the first plug closest to the one end of the casing wears,

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the pressure will be applied to the other wiper of the same plug” and (2) “wherein as a wiper on the second plug closest to the one end of the casing wears, the pressure will be applied to the other wiper of the same plug,” as well as the last-recited step in claim 73, will necessarily be met by the normal operation of the wiper plugs (unnumbered) of Giroux *et al.*

With regard to claims 86 and 87, pressure is applied to the second plug (unnumbered) of Giroux *et al.* by introducing fluid into the casing behind plug (unnumbered) thereby forcing cement from the casing string into the annulus in the same manner as called for in these claims.

Allowable Subject Matter

Claims 1-51 and 89-108 are allowed.

Claims 53, 54, 58-61, 63-66, 81-83, 85 and 113 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 71, 72 and 76-79 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

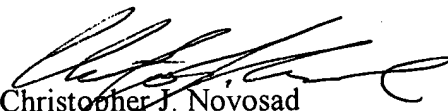
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J. Novosad whose telephone number is 703-308-2246. The examiner can normally be reached on Monday-Thursday 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached at 703-308-3870. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-305-3597 for regular communications and 703-305-3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1020.



Christopher J. Novosad
Primary Examiner
Art Unit 3671

February 26, 2002